

# First record of *Lycopus longissimus* Tang & Li 2010 (Araneae: Thomisidae) from Okinawa Island in Japan

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**Abstract** — A thomisid species, *Lycopus longissimus* Tang & Li 2010, is newly recorded in Japan. The genus *Lycopus* is also new to Japan, and *L. longissimus* is the only Japanese species at present.

**Key words** — Ryukyu Islands, taxonomy

*Lycopus* Thorell 1895, a thomisid spider genus that is distributed in the Oriental region and New Guinea, currently contains nine species (WSC 2020). No representatives of this genus have been recorded in Japan to date (Tanikawa 2019).

Upon examining spider materials obtained from Okinawa Island, Japan, I recognized *Lycopus longissimus* Tang & Li 2010. Here, I present the morphological characteristics of these *L. longissimus* specimens.

Specimens were preserved in 80% ethanol, and their morphological features were observed under a stereomicroscope, Leica M125C. One male and one female specimens were deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo.

The following abbreviations are used: ALE, anterior lateral eye; AME, anterior median eye; MOA, median ocular area; PLE, posterior lateral eye; PME, posterior median eye; RTA, retrolateral tibial apophysis; VTA, ventral tibial apophysis.

Measurements are given in mm. Measurements of legs are given in the following format: [femur + patella + tibia + metatarsus + tarsus = total].

Genus *Lycopus* Thorell 1895

[Japanese name: Tairiku-wakabagumo-zoku]

*Lycopus* Thorell 1895, p. 285 [type species: *Lycopus edax* Thorell 1895, from Myanmar].

**Remarks.** For a clear definition of this genus, detailed studies on the type species are required. Also, the placement of this genus in the subfamily Dietinae is considered unresolved (for details, see Tang & Li (2009)).

**Distribution.** Japan (new record; Okinawa Is.), China, Southeast Asian countries and New Guinea (WSC 2020).

*Lycopus longissimus* Tang & Li 2010

[Japanese name: Kusairo-kanigumo]

(Figs. 1–6)

*Lycopus longissimus* Tang & Li 2010, p. 27, f. 20A–D, 21A–E, 22A–E, ♂♀ (male holotype from Hainan Is., China, not examined).

**Specimens examined.** All specimens were collected on Okinawa Is., Okinawa Pref., Japan. 1 ♂ 2 ♀, Yona, Kunigami-son, 16-III-2015, T. Suguro leg.; 2 ♂ 2 ♀, Nago-shi, 12-V-2009 (1 ♂ 1 ♀), 5-VIII-2009 (1 ♂), 14-IX-2010 (1 ♀), A. Tanikawa leg.

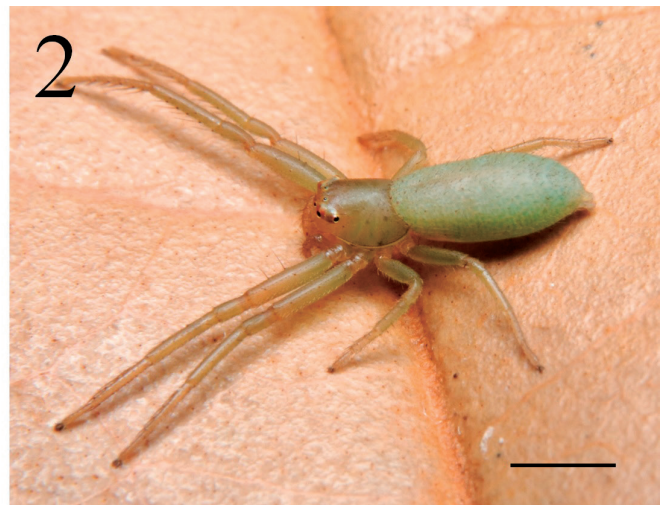
**Diagnosis.** This species can be distinguished from congeners based on the following characteristics. Cymbum and genital bulb broad and circular. VTA oar-shaped in retrolateral view. RTA with one tooth near the apex. Epigynal hood elongate. Copulatory duct slender, intricately twisted.

**Description.** Based on 1 ♂ / 1 ♀. Measurements. Body 4.79 / 5.78 long; carapace 1.94 / 2.08 long; 1.60 / 1.70 wide; 0.72 / 0.98 high; abdomen 2.85 / 3.70 long; 1.12 / 1.80 wide. Eye sizes: AME 0.10 / 0.09; ALE 0.18 / 0.19; PME 0.06 / 0.06; PLE 0.13 / 0.14; AME-AME 0.15 / 0.19; ALE-ALE 0.54 / 0.65; AME-ALE 0.13 / 0.14; PME-PME 0.20 / 0.24; PLE-PLE 0.89 / 1.06; PME-PLE 0.38 / 0.43; ALE-PLE 0.26 / 0.28. MOA 0.29 / 0.35 long, anterior width 0.29 / 0.35, posterior width 0.33 / 0.39. Clypeus 0.23 / 0.31 high. Length of legs: I 2.38 + 0.88 + 2.23 + 1.95 + 0.95 = 8.38 / 2.48 + 1.10 + 2.13 + 1.88 + 0.90 = 8.48; II 2.40 + 0.85 + 2.20 + 1.93 + 0.95 = 8.33 / 2.45 + 1.08 + 2.00 + 1.80 + 0.93 = 8.25; III 1.35 + 0.55 + 1.05 + 0.88 + 0.58 = 4.40 / 1.45 + 0.70 + 1.05 + 0.85 + 0.63 = 4.68; IV 1.70 + 0.53 + 1.25 + 1.03 + 0.65 = 5.15 / 1.85 + 0.70 + 1.28 + 1.03 + 0.68 = 5.53.

Variation among specimens examined. Body 4.79–5.28 / 5.20–7.35 long; carapace 1.86–2.08 / 2.00–2.30 long; 1.54–1.70 / 1.66–1.98 wide; abdomen 2.85–3.20 / 3.20–5.05 long; 1.06–1.36 / 1.48–2.52 wide.

**Table 1.** Spination of legs of *Lycopus longissimus* Tang & Li 2010 (dorsal / ventral; n = no spine).

Leg		Femur	Patella	Tibia	Metatarsus
I	♂	1,1p-1,1p-1,1p-1 / n	1r / n	1p-0-1p-0-1p / 2,1r-2-2,1r-2-2,1r	0-1p-0-0-1p / 2-2-2-2-0
	♀	1,1p-1p-1 / n	n / n	0-0-1p-0-0-1p / 2-2-0-2-2-2	1p-0-1p-0-0-0 / 2-2-0-2-2-2
II	♂	1-1-1-1 / n	1p,1r / n	1p-1p-0-0-1p / 2,1r-2,1r-2-2,1r-1	1-1,1r-0-0-1p,1r / 2-2-2-2-0
	♀	1-1 / n	n / n	0-0-1p-0-1p / 2-2-2-2-2	0-0-1p-0-0 / 2-2-2-2-2
III	♂	1-1-1-1 / n	n / n	1-1-1p-2 / n	1p,1r-0-1p,1r / 0-2-0
	♀	1-1 / n	1-1r-1 / n	1-1,1p / n	0-1p,1r / 2-0
IV	♂	1-1-1-1 / n	1r / n	1-1-0-1,1r 0 / 0-1p-2-1p	1-0-1 / 1p-2-1p
	♀	1-1-1 / n	1-1r-1 / n	1-1,1p / n	1p-1p / 1-0

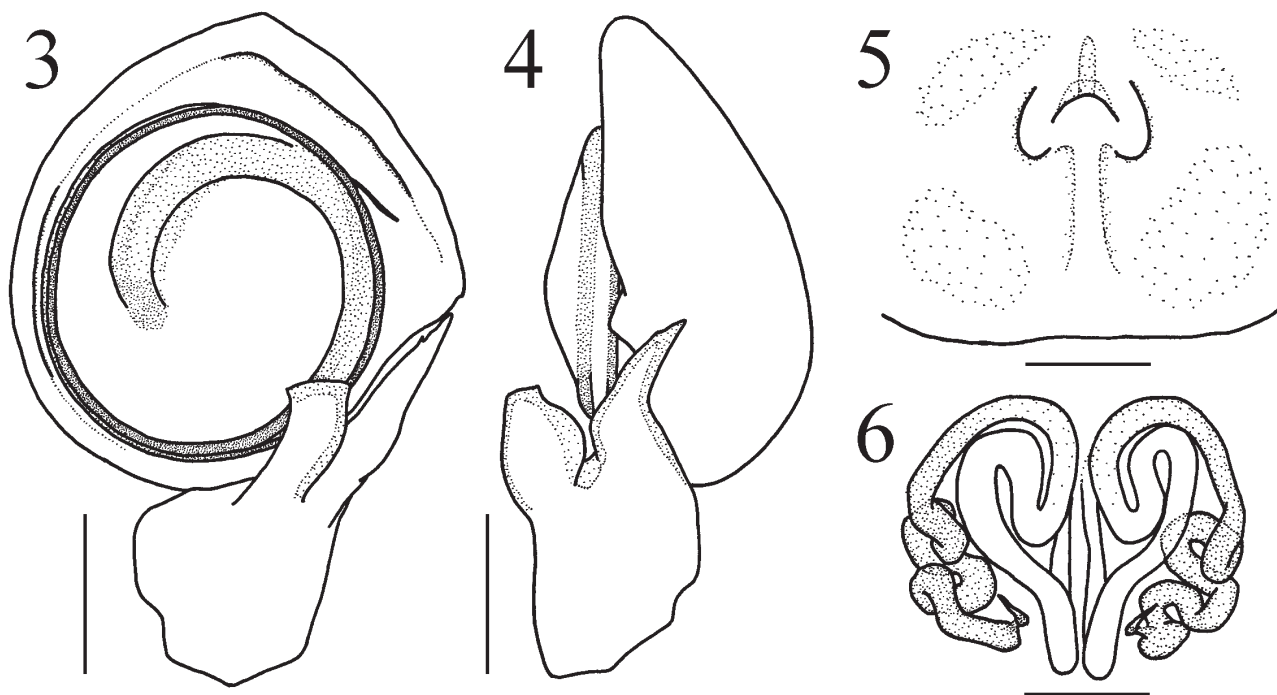
**Figs. 1–2.** *Lycopus longissimus* Tang & Li 2010. 1, male habitus; 2, female habitus. Scales = 2.0 mm.

Chelicera lacking teeth, rather long especially in male. Eye field and clypeus with long setae. Legs covered by short dense hairs and bearing distinct tarsal claw tufts. Abdominal dorsum covered by short sparse hairs and moderate setae. In male, scutum covering almost entire abdomen and posteriorly intermittent. Spination of legs as shown in Table 1. Male palp (Figs. 3, 4). Embolus long and surrounding genital bulb. Genital bulb circular and flat. Cymbium broad and sub-circular. VTA oar-shaped in retrolateral view. RTA with one tooth near the apex. Female genitalia (Figs. 5, 6). Epigyne with elongate hood and openings on anterior part. Copulatory duct slender, intricately twisted, translucent in shallow parts. Spermatheca located posteriorly.

Coloration and markings (Figs. 1, 2). Male and female. Body entirely yellowish brown, covered by sparse greyish brown hairs, lighter in venter than in dorsum. Lateral margin of carapace dark grey only in male. Periphery of eyes yellowish white. Abdominal dorsum with obscure black bands on lateral side in male, while in female slightly dark grey anteriorly.

**Distribution.** China (Hainan Is.) and Japan (new record; Okinawa Is.).

**Remarks.** According to the original description, tibiae and metatarsi I and II are red (incorrectly referred to as “femora and metatarsi” in the description; see Fig. 20A), whereas Japanese specimens are not showing such color-



**Figs. 3–6.** *Lycopus longissimus* Tang & Li 2010. 3–4, left male palp (3, ventral view; 4, retrolateral view); 5, epigyne, ventral view; 6, female internal genitalia, dorsal view. Scales = 0.2 mm (3, 4); 0.1 mm (5, 6).

ation. Also, the position of the embolic origin on genital bulb differs between Chinese and Japanese specimens. However, other genital and somatic characters in both sexes are highly consistent and the differences can be considered to be typical of intraspecific variation. Thus, I identified the Japanese specimens as this species.

Regarding the taxonomic placement of the genus, although the definition of this genus is currently unclear, so far I follow Tang & Li (2010). Further, the presence of a tarsal claw tuft in this species supports the placement of *L. longissimus* in the subfamily Dietinae.

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